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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte STEFAN IHDE

Appeal 2009-007446
Application 10/714,200
Technology Center 3700

Decided: April 9, 2010

Before: WILLIAM F. PATE III, JENNIFER D. BAHR, and KEN B.
BARRETT, *Administrative Patent Judges*.

PATE III, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF CASE

Appellant appeals under 35 U.S.C. § 134 (2002) from a rejection of claims 42-60 and 67-78. We have jurisdiction under 35 U.S.C. § 6(b) (2008).

The claims are directed to bone-adaptive surface structure. Spec. 1, l.

9. Claims 42 and 58, reproduced below, are illustrative of the claimed subject matter:

42. An osteal implant comprising:

a shaft, said shaft having a longitudinal axis and having a first end and a second end at opposing ends of said longitudinal axis;

said first end having a mount for a device to be implanted;

said second end being attached to a top surface of a base;

said base being substantially orthogonal to said longitudinal axis in at least two nonparallel directions, said base being substantially planar; at least one of a top surface or a bottom surface of said base having a first height at a first radial distance from said longitudinal axis and a second height at a second radial distance from said longitudinal axis;

said first height being maintained through at least two directions radial to said longitudinal axis;

said second height being maintained through at least two directions radial to said longitudinal axis, and

both of said top surface and said bottom surface being disposed for osseo integration.

58. An osteal implant comprising

a shaft having a longitudinal axis with a first end and a second end;

said first end having a mount for a device to be implanted;

said second end being terminally attached to a top surface of a base;

said base being substantially orthogonal to said longitudinal axis in at least two non-parallel directions; and said base being substantially planar;

said base having an inner aspect having a first thickness
and said base having a peripheral aspect having a second
thickness.

REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on
appeal is:

Streel	4,344,757	Aug. 17, 1982
Grafelmann	4,538,304	Sep. 3, 1985
Baege	5,965,006	Oct. 12, 1999
Karmaker	6,186,791 B1	Feb. 13, 2001
Robinson	6,238,214 B1	May 29, 2001
Berrang	6,516,228 B1	Feb. 4, 2003
Albrektsson	WO 2001/24737 A1	Apr. 12, 2001

REJECTIONS

Claims 58-60, 69-71, and 75-78 stand rejected under 35 U.S.C. § 112
first paragraph as failing to comply with the written description requirement.
Ans. 3.

Claims 42, 43, 46, 47, 51, 53, 55, 57-59, 67-71 and 75-78 stand
rejected under 35 U.S.C. § 102(b) as being anticipated by Robinson. Ans. 4.

Claim 72 stands rejected under 35 U.S.C. § 102(b) as being
anticipated by Albrektsson. Ans. 6.

Claims 44, 45, 48, 54, and 56 stand rejected under 35 U.S.C. § 103(a)
as being unpatentable over Robinson and Berrang. Ans. 7.

Claim 49 stands rejected under 35 U.S.C. § 103(a) as being
unpatentable over Robinson and Baege. Ans. 7.

Claim 50 stands rejected under 35 U.S.C. § 103(a) as being
unpatentable over Robinson. Ans. 8.

Claim 52 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Robinson and Karmaker. Ans. 8.

Claim 60 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Robinson and Grafelmann. Ans. 8.

Claims 72-74 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Streel and Berrang. Ans. 9.

ISSUES

The first issue presented is whether the Examiner erred by finding that claims 58-60, 69-71, and 75-78 fail to comply with the written description requirement. App. Br. 18-19; Ans. 3-4.

Appellant argues the rejection of claims 42, 43, 46, 47, 51, 53, 55, 57-59, 67-71 and 75-78 as being anticipated by Robinson as a group. App. Br. 12-15. Appellant expressly discusses claim 42, and contends that the Examiner erred in rejecting claim 42 as being anticipated by Robinson because Robinson's regeneration plate 30, read as the claimed base, is not "disposed for osseo integration" on "both of [the] top surface and [the] bottom surface." Reply Br. 3. However, this limitation does not appear in independent claim 58. Therefore, the rejection of claim 42 and dependent claims 43, 46, 47, 51, 53, 55, 57, 67 and 68 is grouped separately from the rejection of claims 58, 59, 69-71 and 75-78.

Appellant presents two arguments related to the rejection of claims 42 and 58 as being anticipated by Robinson that are applicable to claim 58. Appellant contends that the Examiner erred in rejecting claim 58 as being anticipated by Robinson because it is improper for the Examiner to consider any other end than the end receiving tooth 22, of Robinson's screw 11, 23, read as the claimed "shaft," as the claimed "end having a mount for a device

to be implanted.” Given the reading of Robinson suggested by Appellant, the mount end and the base end would be the same ends. App. Br. 12, 15; Reply Br. 2-3, 5. Appellant also disputes the Examiner’s construction of the term “base” as including Robinson’s regenerative plate 30. App. Br. 13-14, Reply Br. 4-5. In light of these contentions, we must determine whether the Examiner erred by rejecting claim 58 as being anticipated by Robinson. Separate arguments are not presented regarding claims 59, 69-71 and 75-78. These claims will therefore stand or fall with claim 58. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2008).

The next issue presented by Appellant is whether the Examiner erred by rejecting claim 72 as being anticipated by Albrektsson because Albrektsson’s collar 20 is not a “substantially planar base.” Reply Br. 6.

Appellant argues the rejection of claims 72-74 as being unpatentable over Streel and Berrang as a group. App. Br. 17-18. Claim 72 is chosen as the representative claim. Appellant contends that the Examiner erred because Berrang relates to implants for the ear, as opposed to dental implants, and because Berrang teaches grooves located axially along the shaft as opposed to on “at least one surface of [the] base” as claimed. In light of these contentions we must determine whether the Examiner erred in rejecting claim 72 as being unpatentable over Streel and Berrang.

PRINCIPLES OF LAW

The test for sufficiency with the written description requirement under 35 U.S.C. § 112 first paragraph is whether the disclosure reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date. *Ariad Pharm., Inc. v. Eli Lilly and Co.*, 2010 WL 1007369, at *12 (Fed. Cir. Mar. 22, 2010) (citations omitted).

A determination of anticipation, as well as obviousness, involves two steps. First is construing the claim, a question of law, followed by, in the case of anticipation or obviousness, a comparison of the construed claim to the prior art. This comparison process involves fact-finding. *Key Pharms. v. Hercon Labs. Corp.*, 161 F.3d 709, 714 (Fed. Cir. 1998) (citations omitted).

[T]he PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in applicant's specification.

In re Morris, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co.*, 814 F.2d 628, 631 (Fed. Cir. 1987) (citations omitted).

The Supreme Court in *KSR* reaffirmed the framework for determining obviousness as set forth in *Graham v. John Deere*. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 399-400 (2007) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966)). The factual inquiries set forth in *Graham* for establishing a background for determining obviousness under 35 U.S.C. § 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence indicating obviousness or nonobviousness.

The determination of the scope and content of the prior art includes determining whether prior art references are “analogous.” Whether a reference in the prior art is “analogous” is a fact question. *In re Clay*, 966 F.2d 656, 658 (Fed. Cir. 1992) (*citing Panduit Corp. v. Dennison Mfg.*, 810 F.2d 1561, 1568 n.9 (Fed. Cir. 1987)).

Two criteria have evolved for determining whether prior art is analogous: (1) whether the art is from the same field of endeavor, regardless of the problem addressed, and (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved.

Id. at 658-59 (*citing In re Deminski*, 796 F.2d 436, 442 (Fed. Cir. 1986); *In re Wood*, 599 F.2d 1032, 1036 (CCPA 1979)). “A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem.” *Id.* at 659.

ANALYSIS

The rejection of claims 58-60, 69-71, and 75-78 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement is reversed.

Lack of literal support in the Specification is not enough to support a rejection under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The test is whether the disclosure reasonably conveys to a person skilled in the art that the inventor had

possession of the claimed subject matter at the time of filing. *Eiselstein v. Frank*, 52 F.3d 1035, 1038-39 (Fed. Cir. 1995) (citations omitted).

The Examiner has not adequately articulated an analysis to support the finding that Appellant is not entitled to employ the terms “inner aspect,” “peripheral aspect,” “leading portion,” “trailing portion” and “waist” in order to define the claimed invention. While identical language may not be employed, the meaning of these terms and support therefor is readily discernible from the Specification. App. Br. 18-19. Accordingly the rejection of claims 58-60, 69-71, and 75-78 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement is reversed.

The rejection of claims 42, 43, 46, 47, 51, 53, 55, 57, 67 and 68 as being anticipated by Robinson is reversed.

In each of the embodiments described by Robinson, the regeneration plate 12, read as the claimed “base,” is removed after four to eight months of bone regeneration. Robinson, col. 6, ll. 61-63, col. 7, ll. 17-24, Figs 5, 6, 9, 10. The Examiner therefore erred in finding that Robinson discloses a base having both a top surface and bottom surface “disposed for osseo integration.” This limitation requires at least some structure tending to encourage the regenerated bone to integrate with the plate—an outcome which Robinson does not intend and therefore does not provide structure to accomplish. Since Robinson fails to disclose each and every limitation of claim 42, the rejection of claim 42, along with dependent claims 43, 46, 47, 51, 53, 55, 57, 67 and 68, as being anticipated by Robinson must be reversed.

The rejections of claims 44, 45, 48-50, 52, 54, and 56, under 35 U.S.C. § 103(a) as being unpatentable based wholly or in part on Robinson are reversed.

For the reasons discussed above, the Examiner's conclusion of obviousness regarding claims 44, 45, 48-50, 52, 54, and 56 is premised upon an erroneous determination of the scope and content of the prior art. The Examiner does not articulate any rational basis based upon Robinson alone, or in combination with any of the other applied references, to cure this deficiency. Accordingly, we must conclude that the Examiner also erred in concluding that the subject matter of claims 44, 45, 48-50, 52, 54, and 56 would have been obvious to one having ordinary skill in the art.

The rejection of claims 58, 59, 69-71 and 75-78 as being anticipated by Robinson is affirmed.

Appellant's first argument, that the mount end and the base end of Robinson are the same ends, is unpersuasive. App. Br. 12. The claim requires only a "first end having a mount for a device to be implanted." There is no requirement that the "device to be implanted" form part of the claimed combination, nor is there any requirement that the "device to be implanted" is a tooth. Appellant's argument is not commensurate with the scope of claim 58. *See In re Self*, 671 F.2d 1344, 1348 (CCPA 1982) (limitations not appearing in the claims cannot be relied upon for patentability). Appellant has chosen to employ broader language in the claims than is used in the Specification to describe this feature and it would be improper to read limitations from the Specification into the claim. *See SuperGuide Corp. v. DirecTV Enters., Inc.*, 358 F.3d 870, 875 (Fed. Cir.

2004) (“Though understanding the claim language may be aided by the explanations contained in the written description, it is important not to import into a claim limitations that are not a part of the claim. For example, a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment.” (citation omitted)). Therefore, despite not being on the tooth end, the Examiner’s reading of the threads of Robinson’s shaft 11, 23 as the claimed “mount for a device to be implanted” is reasonable. Ans. 10. The mount end and base end are therefore not the same ends as Appellant suggests. Additionally, Robinson’s implant 17 is cited by the Examiner as exemplary of a device to be implanted and not the claimed “shaft” as Appellant suggests. Ans. 10; Re. Br. 5.

Appellant’s second argument, that it is unreasonable to read Robinson’s regenerative plate as the claimed base, is also unpersuasive. App. Br. 13. Even adopting Appellant’s proffered definition of the term “base” as something that lends, as opposed to requires, support, Robinson’s regenerative plate is reasonably read as the claimed base. While, arguably, Robinson’s screw may be fixed in practice and somewhat more rigid than the regenerative plate, both structures, like Appellant’s, are capable of lending support to, and receiving support from, the other. That is, despite the plate’s malleability, it is preferably titanium and sufficiently rigid to maintain its shape. Robinson, col. 5, ll. 32-40. Given this material and the relative light weight of the screw, the combined structure of the screw and regenerative plate could be supported by the regenerative plate, thereby making the regenerative plate a “base” according to Appellant’s proposed definition. While Robinson’s plate may be thinner and more malleable than the structure contemplated in Appellant’s Specification, the term “base” is

broad enough to include Robinson's plate. Appellant has not presented a persuasive reason to adopt a narrower construction of the term.

Robinson's plate is "planar" and "orthogonal" to the shaft axis in at least the configuration depicted in Figure 11. Robinson, Fig. 11. Although the plate is subsequently bent, the fact that it exists in the claimed configuration for at least some interval of time is sufficient to meet the limitations of the claim. It has long been held that an intermediate product or article can anticipate a claimed article even if the intermediate product is merely a stage in the final production of a non-anticipatory article. *See In re Mullin*, 481 F.2d 1333, 1335-6, (CCPA 1973)(an article that is intended and appreciated is no less anticipatory be it an intermediate structure rather than an end use item)(*citing In re Herbert*, 461 F.2d 1390, 1394 (CCPA 1972)). The court, in the *Mullin* decision, goes on to distinguish the accidental anticipation cases: *Tigman v. Proctor*, 102 U.S. 707 (1880) and *Eibel Process Co. v. Minn. And Ont. Paper Co.*, 261 U.S. 45 (1923).

For these reasons, the Examiner did not err by rejecting claim 58 as being anticipated by Robinson. Since separate arguments are not presented, we also conclude that the Examiner also did not err in concluding claims 59, 69-71 and 75 are also anticipated by Robinson.

The rejection of claim 60 as being unpatentable over Robinson and Grafelmann is affirmed.

Claim 60 is argued solely based upon its dependency from claim 58. App. Br. 17. For the reasons indicated above, Appellant's arguments regarding claim 58, and therefore claim 60, are unpersuasive.

The rejection of claim 72 as being anticipated by Albrektsson is reversed.

Appellant's argument that Albrektsson's collar 20 is not a "substantially planar base" is persuasive. Rep. Br. 5-6. At best, the collar may have planar portions, but the collar itself is integrated with mounting section 23 via a radiused portion. See Albrektsson, Fig. 4. It also has significant thickness relative to its width and depth. See Albrektsson p. 10, ll. 15-25. For these reasons, collar 20 does not have a shape that substantially resembles a plane and is therefore not "substantially planar" as claimed. Accordingly, the rejection of claim 72 as being anticipated by Albrektsson must be reversed.

The rejection of claims 72-74 under 35 U.S.C. § 103(a) as being unpatentable over Streel and Berrang is affirmed.

Appellant does not dispute any of the Examiner's findings regarding Streel and those findings are hereby adopted. Appellant's first argument that the Examiner erred in concluding the claimed subject matter would have been obvious because Berrang relates to implants for the ear as opposed to dental implants is unpersuasive. See App. Br. 17-18. Despite being located in proximity to the ear, Berrang was concerned with the same particular problem as Appellant—affixing an implant within bone. Berrang col. 7, ll. 22-26, Fig. 5; Spec. 2:2-3. Thus, Berrang logically would have commended itself to an inventor's attention in considering the problem of affixing other implants in bone.

Appellant's second argument, that the Examiner erred in concluding the claimed subject matter would have been obvious because Berrang teaches grooves located axially along the shaft as opposed to on "at least one surface of [the] base" as claimed is also unpersuasive. App. Br. 17-18. Combining the *teachings* of references does not mandate combination of

their specific structures. *In re Nievelt*, 482 F.2d 965, 968 (CCPA 1973).

The relevant inquiry is whether the claimed subject matter would have been obvious to those of ordinary skill in the art in light of the *combined teachings* of those references. See *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). One of ordinary skill in the art would have recognized that, although applied to the axial portion of Berrang's implant, the crests and grooves 20 could be applied to other surfaces as well in order to similarly aid in osseointegration. "[A] person of ordinary skill is also a person of ordinary creativity, not an automaton." *KSR*, 550 U.S. at 421.

For these reasons, the Examiner did not err in concluding that the subject matter of claim 72 would have been obvious to one having ordinary skill in the art. Since separate arguments are not presented, we also conclude that the Examiner did not err in concluding that the subject matter of claims 73 and 74 would have been obvious to one having ordinary skill in the art.

DECISION

The rejection of claims 58-60, 69-71, and 75-78 under 35 U.S.C. § 112 first paragraph as failing to comply with the written description requirement is reversed.

The rejection of claims 42, 43, 46, 47, 51, 53, 55, 57, 67 and 68 as being anticipated by Robinson is reversed.

The rejection of claims 44, 45, 48, 54, and 56 as being unpatentable over Robinson and Berrang is reversed.

The rejection of claim 49 as being unpatentable over Robinson and Baege is reversed.

The rejection of claim 50 as being unpatentable over Robinson is reversed.

The rejection of claim 52 being unpatentable over Robinson and Karmaker is reversed.

The rejection of claims 58, 59, 69-71 and 75-78 as being anticipated by Robinson is affirmed.

The rejection of claim 60 as being unpatentable over Robinson and Grafelmann is affirmed.

The rejection of claim 72 as being anticipated by Albrektsson is reversed.

The rejection of claims 72-74 under 35 U.S.C. § 103(a) as being unpatentable over Streel and Berrang is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2009).

AFFIRMED-IN-PART

nhl

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